

# Opportunity, Time, and Place

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# The Waves of High Tech Change

- ❖ **Organization and Presentation of Information**
  - From Images to Models to Avatars
- ❖ **Robotics**
  - From Passive to Active to Autonomous
- ❖ **Sensors**
  - From General to Indirect to Specific
  - From High cost complex to Low Cost Simple
- ❖ **People**
  - From Old Specialty Hierarchies to New Disciplines to Flat Teams

# The Waves of High Tech Change

## ❖ **Biomedical Systems**

- From “Stand alone” to “Plug and Play” to integrated S/W replacements

## ❖ **Regenerative Medicine**

- From mechanical to biological replacement organs

## ❖ **Decision Support**

- From Passive Pathways to Adaptive Procedures
- Effective Management of False Positives

## ❖ **Patient Management**

- From Treatment to Early Detection to Prevention

# GE CT Team - ca. 1976



# Diagnosis/Staging: We've done well...

## ❖ Explorative Laparotomy

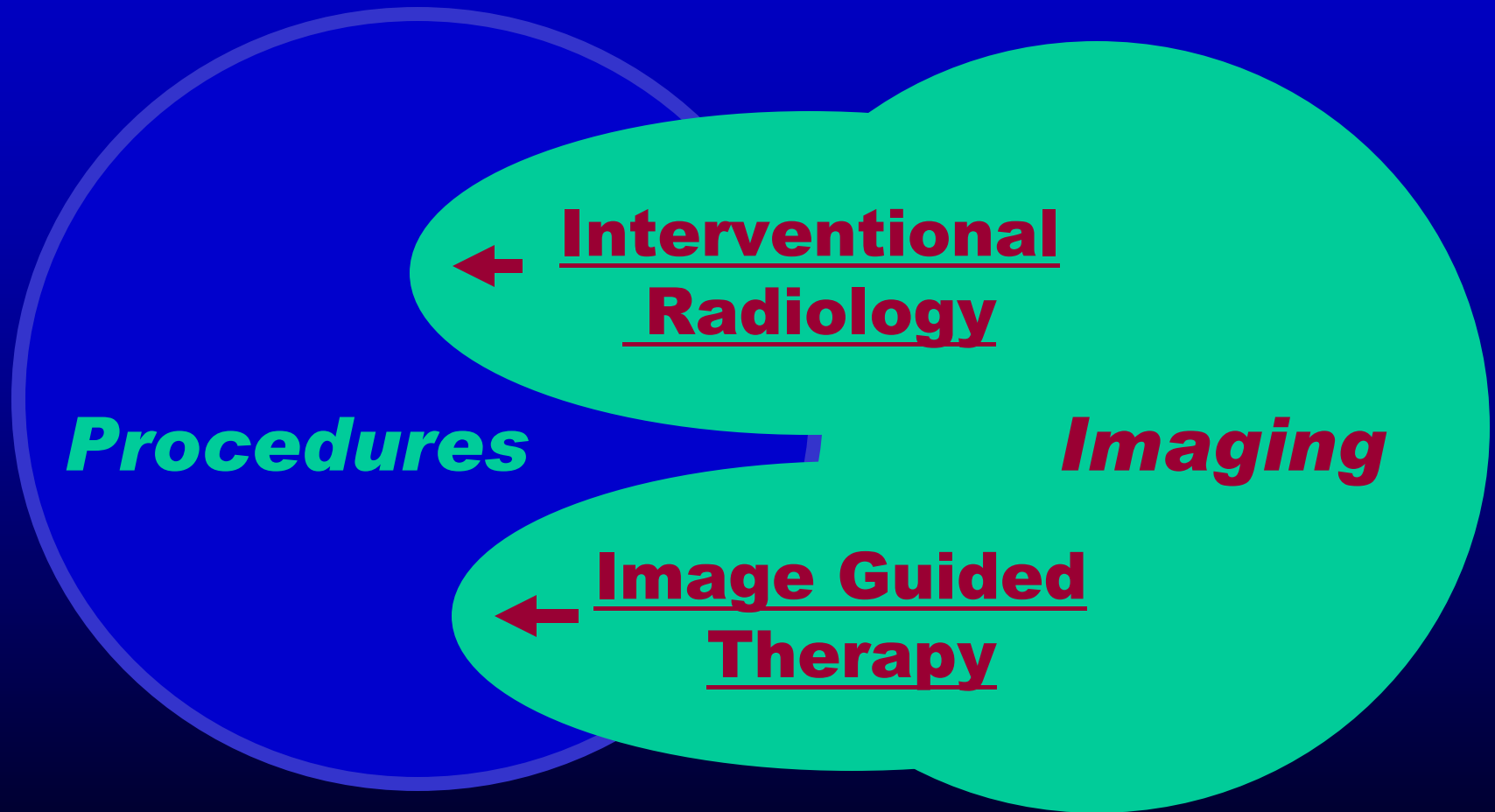
- Prior to 80's 20-25% were normal
- Today ~1% are normal

## ❖ CT evaluation to rule out appendicitis

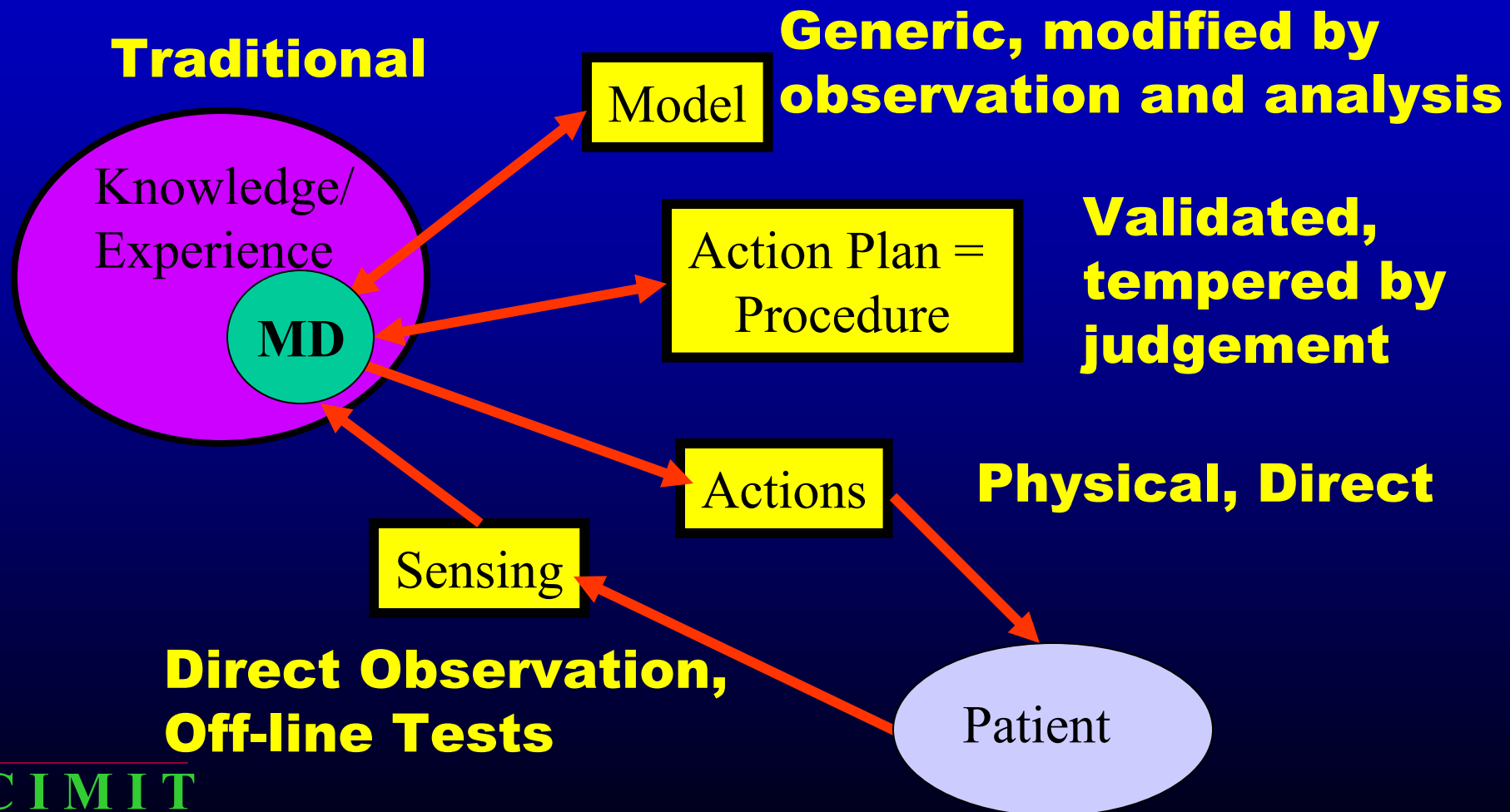
- N=100 patients\*
- N=13 avoided surgery
- N=50 avoided observation
- Including CT charges, saved \$691 per patient

## ❖ CNS disease .....

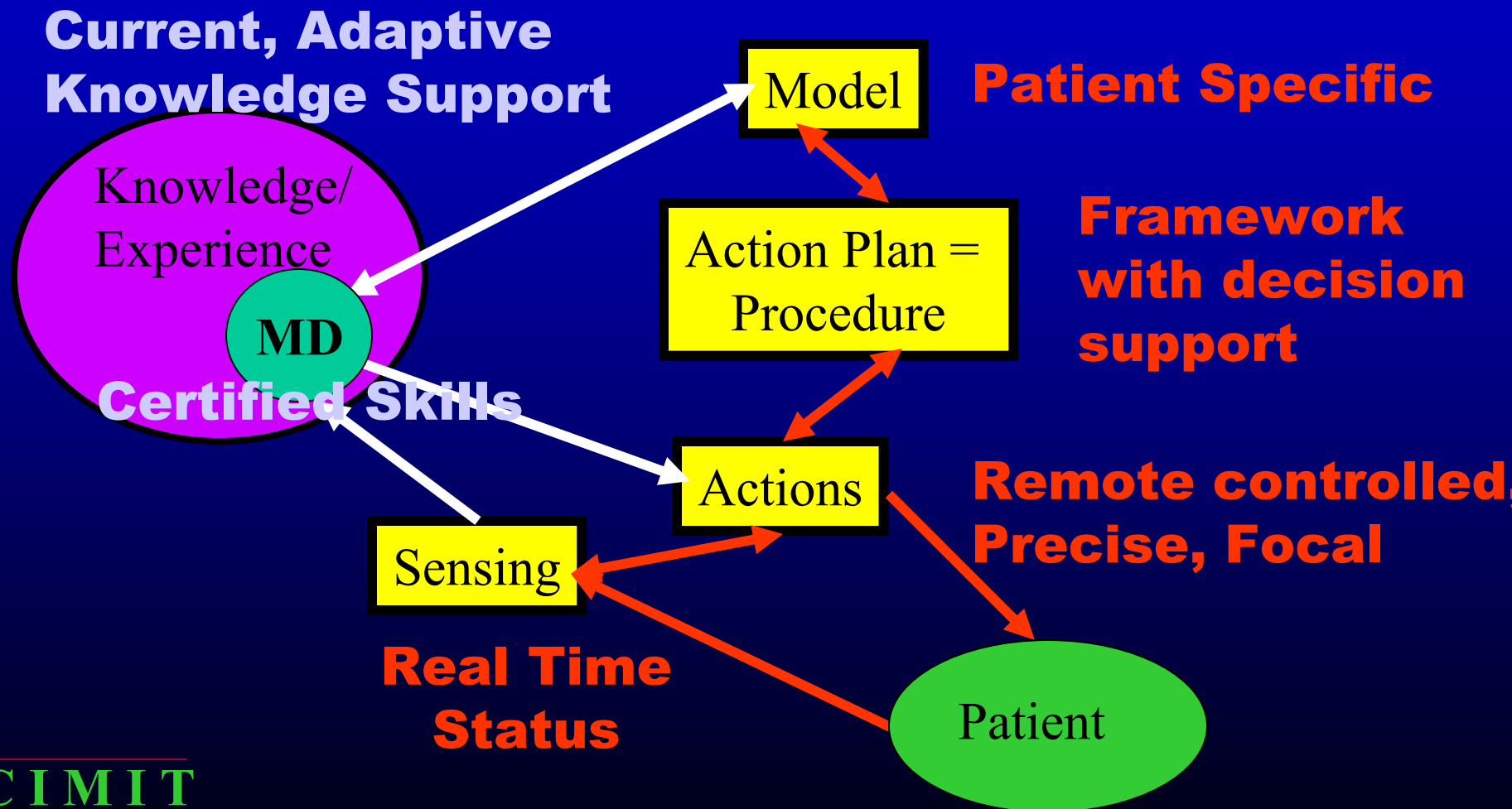
# Near Future: Continued Impact on Procedural Medicine



# Treatment Today



# Future Treatment Role of Imaging



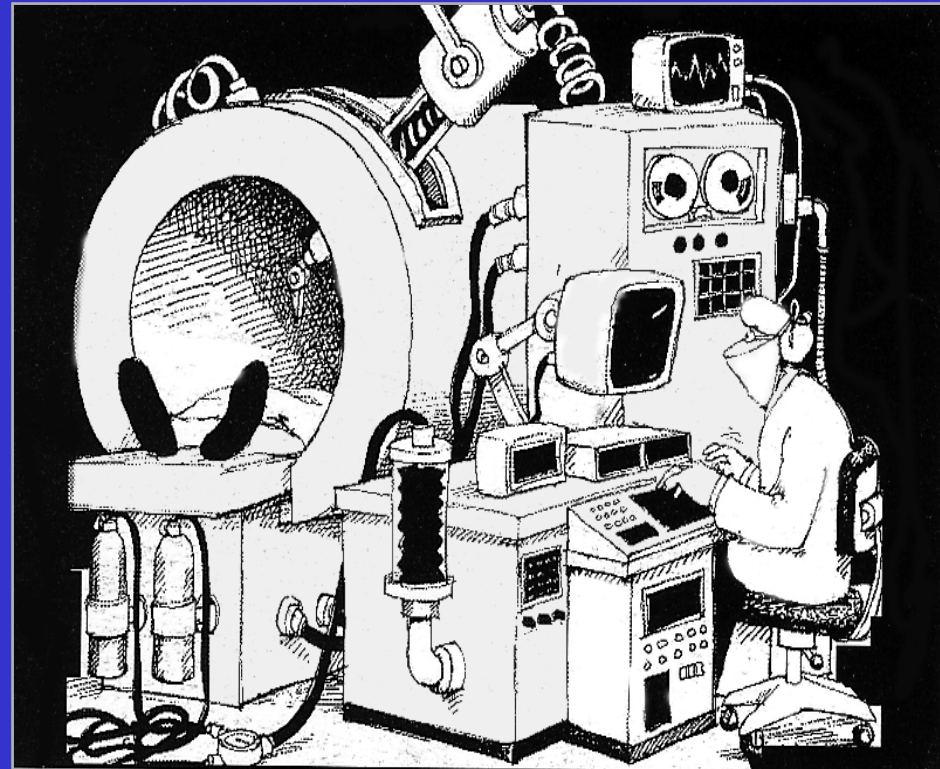


# The reality and the vision?



(c) K. Nambu, 2000

**“I’m sure we’ll find the patient shortly, Doctor”**



**“It’s a lot like playing ‘Battleship’ ”...**

We have recognized the  
opportunity,

we have come  
to the right place

to reach for our goal:

**Higher Quality,  
Safer,  
Lower Cost Care,  
so that we all  
can live a better life.**

